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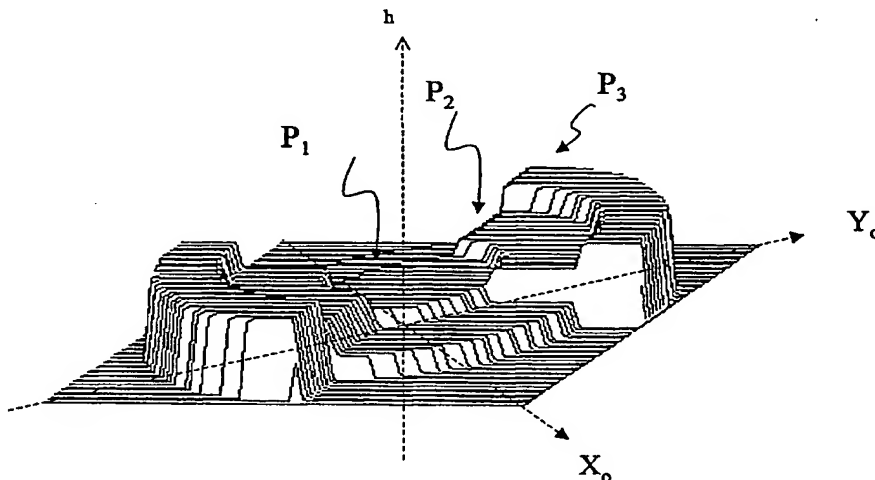
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[Continued on next page]

(54) Title: OPTICAL SCANNING DEVICE

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(57) Abstract: An optical scanning device (1) is for scanning two information layers (2, 2') with two radiation beams (4) in two operating modes. It comprises a radiation source (7) for emitting the two radiation beams, an objective lens system (8) for converging the two beams on the positions of the two information layers, and a phase structure (24) having an optical axis (19) and including a central part (P₁) and at least one marginal part (P₂) for forming a non-periodic stepped profile in the radial direction. One (P₂) of said central and marginal parts (P₁, P₂) includes at least two segments (AS_{2,1}, AS_{2,2}) having two different step heights (h_{2,1}, h_{2,2}), respectively, for introducing in said first operating mode two wavefront modifications $\Delta W_{2,1,1}$ and $\Delta W_{2,2,1}$, respectively, and in said second operating mode two wavefront modifications $\Delta W_{2,1,2}$ and $\Delta W_{2,2,2}$, respectively, where the difference ($\Delta W_{2,1,2} - \Delta W_{2,2,2}$) - ($\Delta W_{2,1,1} + \Delta W_{2,2,1}$) is asymmetric.

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**Declaration under Rule 4.17:**

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DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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A. CLASSIFICATION OF SUBJECT MATTER
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B. FIELDS SEARCHED

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IPC 7 G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2002/105733 A1 (DE VRIES JORRIT ERNST ET AL) 8 August 2002 (2002-08-08) the whole document	1-12
A	EP 1 126 291 A (ASAHI GLASS CO LTD) 22 August 2001 (2001-08-22) paragraph '0080!; figures 8,20; example 10	1-12
P,A	EP 1 341 165 A (KONISHIROKU PHOTO IND) 3 September 2003 (2003-09-03) the whole document	1-12
P,A	WO 03/060892 A (DE VRIES JORRIT E ; HENDRIKS BERNARDUS H W (NL); KONINKL PHILIPS ELECT) 24 July 2003 (2003-07-24) cited in the application the whole document	1-12

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